



Woodworking Waste Management in Schools

A Series of Best Management Practices

Woodworking and finishing produces many types of wastes that may be avoided if managed with pollution prevention techniques. Hazardous wastes, solid wastes and air emissions may be reduced or eliminated, improving working conditions, reducing regulatory burden, and ultimately saving money.

Health and environmental risks

Toxic air pollutants (TAPs) are chemicals such as toluene, methanol and xylene, which evaporate quickly into the air and can cause adverse health effects. These solvents can be found in adhesives, thinners and stains. Volatile organic compounds (VOCs) are TAPs that react with sunlight to form ground-level ozone. Breathing difficulties occur as a result of the ozone; they also cause headaches, fatigue and nausea.

Substitutions and safe alternatives

Alternative products are found to work just as well as historically used products. Making substitutions will, among other benefits, save schools money.

- Toxic glue can be replaced with non-toxic, or water-based adhesives that can be heated to increase efficiency and utilize less product.
- Paint strippers can be substituted with mineral washing soda, non-toxic and water-based products. One new product heats the paint, so you can strip it off easily.
- Wood coating products are available as aqueous-based or low-VOC.

Reuse and recycle for cleaning solvents

Used solvents can also be reused and recycled. Cleaning solvents can be reused with the addition of a second wash station. With this second step, solids settle out of the first bath, and the solvent can be carefully poured off and used again. Solvent recycling is possible with a distillation system. The solvent is heated, condenses, and leaves the wastes behind. These units exist in various sizes, and can be utilized in-house, or solvent can be shipped off-site to recycle. Distillation greatly reduces the amount of wastes generated, and the amount of solvent purchased.

Reducing Waste, Saving Money

- Saw dust and shavings can be sold to farmers or pet stores for animal bedding, instead of thrown in the trash.
- Shop towels should be cloth instead of paper, so they can be laundered by an off-site service.
- Paper filters from spray booths can be replaced with plastic or metal that can be cleaned and used many times.
- Products should be ordered in correct quantities, and on an as-needed basis. This will reduce the amount of expired or unfinished materials that might otherwise be considered wastes.
- Vendors can offer you all of the alternatives, but you have to ask for them.

New Hampshire Pollution Prevention in Schools Project

<http://www.des.nh.gov/nhppp/Schools/> or call (603) 271-0878

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